## Research on the Construction Strategy and Practice of Basic Mathematics in Local Universities under the Background of Transformation and Development

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**Abstract:** Mathematics is an important subject in the education stage of colleges and universities. Under the background of transformation and development, local university education is also facing a severe reform situation, and the construction of basic mathematics discipline has gradually become a problem that should be paid more attention to in the process of mathematics education in colleges and universities. From the current form of college education, it is influenced by many factors, among which there are many problems, which are also the main obstacles to the development of college education. Based on the in-depth analysis of the characteristics of mathematics education in colleges and universities, this paper expounds in detail the practical strategies for the construction of basic mathematics subjects in local colleges and universities in combination with the background of transformation and development.

#### 1. Introduction

In the practice of university education management, the construction level of basic discipline is closely related to the quality of teaching, and the construction of discipline is also the objective embodiment of the quality of running a university, which is the key to promote the development of university education. Under the background of transformation and development, the traditional basic mathematics teaching in local colleges and universities has gradually exposed more problems, if these problems cannot be effectively solved, it will become the main obstacle to improve the quality of education in colleges and universities. Therefore, local colleges and universities should actively change the concept of running schools, combine the development trend of education and the actual learning requirements of college students, actively improve and promote the construction of basic mathematics subjects, improve the overall quality of mathematics subject education, make mathematics education better meet the actual requirements of transformation and development, and create good basic conditions for the transformation and development of higher education.



Figure 1 Conference study and discussion

- 2. The Significance of the Construction of Basic Mathematics in Local Colleges and Universities Under the Background of Transformation and Development
- 2.1. Helps Improve Mathematics Education in Local Colleges and Universities

Under the background of promoting the all-round development of students'comprehensive

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quality education, the improvement of students'ability and quality in all aspects should be the key consideration in the process of education. Mathematics is an important subject in the stage of college education, and it is also an indispensable part of basic education. From the point of view of the course of education development, mathematics education has a long history in our country, so it has formed a relatively fixed teaching form and educational idea, and the teaching mode has gradually become perfect and standardized[1]. However, under the background of transformation and development, with the continuous renewal and development of education, the teaching mode formed under the traditional concept is no longer in line with the actual requirements of education development and college students'learning. At the same time, many college teachers don't know enough about the basic subject of mathematics, there is obvious educational tendency under the idea of examination-oriented education, even many students simply deal with the problem when carrying out mathematics teaching activities, so the quality of basic mathematics education in colleges and universities is influenced by many factors and environment from outside. Under the background of transformation and development, the construction of basic mathematics subjects in local colleges and universities effectively solves the main obstacles that affect the improvement of mathematics education quality. Good discipline construction quality can help students to learn and understand better and understand mathematics knowledge content, and at the same time stimulate students'enthusiasm for mathematics learning.

#### 2.2. Consistent With Overall Trends in Higher Education Development

In the process of students'learning, the basic knowledge points and comprehensive quality are the key parts that cannot be ignored, so teachers should actively explore and improve the teaching mode when carrying out teaching activities, and promote students to learn the corresponding knowledge content better. Because students are very easy to be restricted and influenced by the outside world in the process of learning, teachers should pay some attention to the teaching environment in the course of carrying out their normal teaching activities, combine with the students'actual growth and development needs, consider the changes of students'psychological activities in the process of learning synthetically, strengthen the teaching innovation and application, help students get more external environmental stimulation in the process of learning, and give students the most powerful impact on psychology and spirit[2]. The construction of basic mathematics in local colleges and universities under the background of transformation and development is exactly in line with the current development trend of higher education, and plays a very positive role in cultivating students'thinking ability of mathematics and enlivening the atmosphere of classroom teaching, which is the actual need of current education development. It is also an effective way to improve the quality of mathematics teaching in local colleges and universities.

## 2.3. It is Beneficial to the Cultivation and Development of College Students'innovative Spirit and Practical Ability

With the continuous development of economy and society, innovation has gradually been widely concerned by the whole society, and good innovation spirit and practical ability are also the basic conditions for students to learn and develop in the future. However, the cultivation of innovative spirit and practical ability is not accomplished overnight, so it is necessary for teachers to adopt effective ways and methods in the teaching process and design the teaching form scientifically. The traditional local colleges and universities pay too much attention to the students'learning and mastery of theoretical knowledge in the course of mathematics construction, so the compilation of teaching plan and the determination of teaching objectives are basically carried out around the level of theoretical knowledge, and many teachers do not pay enough attention to the students'innovative spirit and practical ability. In order to realize the educational goal of cultivating students'innovative spirit and practical ability, it is necessary for teachers to consider it when setting the teaching plan, and then to achieve the ideal educational goal only by constantly accumulating and practicing, under the premise of strengthening the students'basic knowledge[3]. Under the background of transformation and development, the construction of basic mathematics subject in local colleges and universities has changed the educational idea of basic mathematics education stage, and given

students more opportunities to think independently and practice, which will play a very positive role in the cultivation of college students'innovative spirit and practical ability.

# 3. Under the Background of Transformation and Development, the Effective Implementation Countermeasures of the Construction of Basic Mathematics Subject in Local Colleges and Universities

From the above analysis, it can be seen that under the background of transformation and development, the construction of basic mathematics in local colleges and universities is imperative. However, in this process, local colleges and universities cannot blindly follow blindly, because the discipline construction itself has a certain system, local colleges and universities must combine the advantages and characteristics of their own education development, targeted to take appropriate discipline construction measures, specifically, can carry out discipline construction from the following aspects:

#### 3.1. Paying Attention to the Subjectivity of College Students in the Course Construction

All along, the student-centered teaching concept is an important issue in teaching practice. However, under the traditional teaching concept, the student-centered teaching concept is gradually diluted due to the influence of many factors, such as teaching environment and examination evaluation, and the teacher-centered teaching form is replaced, and this teaching form has been existed and developed for a long time[4]. In this case, students in the process of learning are in accordance with the teacher's ideas and ideas for learning activities, as long as according to the teacher's process, can achieve satisfactory results in the examination, which is also a problem in many local colleges and universities in the process of mathematics construction is inevitable.

However, in order to meet the actual needs of the transformation and development under the current trend of education development, colleges and universities must reverse this traditional educational concept in the course of the construction of basic mathematics, break the old teaching concept with teachers as the main body and theoretical knowledge transmission as the goal under the traditional teaching mode, gradually turn teaching into a modern teaching mode with students as the main body and comprehensive quality development as the goal, train students'logical thinking ability, and train students'main body' classroom questioning mode as shown in figure 1. For example, when learning the content of parameter estimates and hypothesis tests, you can form the following mind map 2. Give full play to the main position of students in the process of learning, take the student as the center to adjust the teaching mode and make the teaching plan, make clear the teaching status of the teacher guide and organizer, let the students complete the study of the new knowledge in the process of continuous development and creation, and improve the construction level of the basic subject of mathematics in local colleges and universities.



Figure 2 Building thinking and innovation

### **3.2.** Innovative Discipline Construction to Enhance The Richness of Basic Mathematics in Local Colleges and Universities

From the actual situation of basic mathematics teaching in local colleges and universities, the

single teaching form of step-by-step almost runs through the whole process of students'learning. Therefore, students in the process of learning, often have a strong passivity, learning is mostly out of the completion of the teaching tasks assigned by teachers, lack of autonomy and independence. Under such a discipline construction system, if the learning content is more difficult, the students'confidence in learning will be greatly affected, and some students will be tired of learning, which is very unfavorable to the development of mathematics learning and follow-up teaching activities of college students. Therefore, under the background of transformation and development, local colleges and universities should follow the principle of innovation in the process of basic mathematics subject construction, actively abandon the shackles and influence of traditional subject education concept, combine the overall trend of education development, and actively create a subject education mechanism that accords with the characteristics of college students'learning.

That is to say, in the course of the construction of basic mathematics subjects in local colleges and universities, we should pay attention to combining the actual learning requirements of college students, constantly innovate and improve the form of subject education and development, integrate the things that students are interested in in in mathematics subjects, make the basic mathematics education of local colleges and universities rich in change, and give students a bright feeling. In this process, local colleges and universities should avoid blindly following the phenomenon, cannot imitate or copy the form of discipline construction in other colleges and universities, should focus on the characteristics of local colleges and universities'own education and development, focus on the advantages, let the construction of mathematics discipline not only reflect the advantages of local colleges and universities, but also accord with the mainstream trend of education development, and improve the pertinence and effectiveness of the construction of basic mathematics discipline in local colleges and universities.

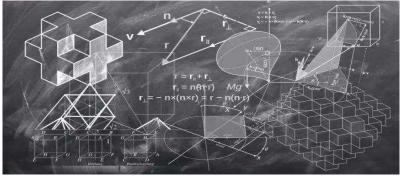


Figure 3 Construction process

#### 4. Conclusion

To sum up, the construction of basic mathematics subject in local colleges and universities is the inevitable requirement of transformation and development, and it is also an effective way to improve the education level of colleges and universities. Therefore, colleges and universities should combine their own advantages and characteristics of running schools, constantly improve the subject education system, enrich the content of mathematics subject education, and promote the continuous development of basic mathematics education.

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